

Work Order ID 53771

November 18, 2009 8:37:15 AM



Page 1

Item ID: D350-748-101

Accept



Setup Start



Revision ID: #E @ 10.01.12

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: *BT*

Date: *07-11-18*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

N/A

Rev D

100



DOCUMENT CONTROL

0.00

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-748-101

CHG001

SCRAP

110



BENDING MACHINE - CROSSTUBES

0.00

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per Dwg D350-748-141 using CNC bender program D350F and Folio FT

DD

10-1-12

120



QC15- Crosstube Dimensional Check

0.00

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-748-101 PAR #: _____ Fault Category: cross tubes NCR: Yes No DQA: _____ Date: 10.02.11
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: _____ Date: 10.02.11

NCR: 53771		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.01.13	110	LH/RH TWIST = 0.711" R.C. process	<u>[Signature]</u> for BB QSI042	TWIST TOO LARGE, WILL HAVE TROUBLE INSTALLING SCRAP/DETROY 10.01.13	MKS 10-01-27	S 10/02/11	<u>[Signature]</u> for BB 10-01-27 QSI042	J 10/02/11

NOTE: Date & initial all entries

Work Order ID 53771

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Item ID: D350-748-101

Accept



Setup Start



Revision ID: D

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____



Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	Crosstubes	0.00							
Crosstubes	Memo	0.00							
Crosstubes	1-Drill Tube as per Dwg D350-748-141 Using DT8876 A,B &C Drill Jigs, Set-up drill table as per QSI 010								
	2-Deburr								
	3-Engrave Part # and Batch # as per Dwg D350-748-141								
	4-Remove all marks from tube within limits of D350-748-141								
	5- Apply a light coat of LPS3 on the interior of tube Batch: _____								
140 	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control	CHECK 10 DEG HOLES WITH DT8876E (EUROCOPTER CLAMP)								

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Item ID: D350-748-101

Accept



Setup Start



Revision ID: D

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:




Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  Outsource3	Outsource process-Cadplate per QSI017 4.1.9.1	0.00							
Outsource process - Cad plate	Memo Issue P/O: _____ Stress relief at 375° for 5 hours Magnetic Particle Inspect per ASTM E1444 Cadium Plate per AMS-QQ-P-416B, Class 1, Type 2 Embrittle relief at 375° for 8 hours, Chromate Treat Possibe Supplier: Southwest United Industries Ensure Certificate of Conformity is attached	0.00							
160  Packaging	Receive & Inspect for Damage& Mat'l Certs	0.00							
Packaging	Memo Ensure certificate of conformity is attached	0.00							
170  QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 53771

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Item ID: D350-748-101

Accept



Setup Start



Revision ID: D

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 	SprayPaint	0.00							
SprayPaint	Memo	0.00							
Spray Painting	1-Prime inside crosstube as per QSI 005 4.2 2-Prime Outside of Tube as per Dart QSI 005 4.2								
190 	QC14- Inspect Spray Paint	0.00							
QC	Memo	0.00							
Quality Control	Then, Wrap in plastic bag to protect from scratches								
200 	Crosstubes	0.00							
Crosstubes	Memo	0.00							
Crosstubes	1-Install Ground wire Insert, then insert screw and washer 2-Install Abraison strips as per Dwg D350-748-141 & QSI 035. 3-Install supports Using Dt8876 as per Dwg D350-748-141, Torque to 60-80 IN- LBS								

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 53771

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Item ID: D350-748-101

Accept



Setup Start



Revision ID: D

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00							
220 	Pick Kit	0.00							
Packaging Packaging	Memo	0.00							
230 	QC4- 100% Inspect kits for completeness	0.00							
QC Quality Control	Memo	0.00							

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 53771

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Item ID: D350-748-101

Accept



Setup Start



Revision ID: D

Stop



Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240



Packaging

Packaging

0.00

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-748-101

Location: _____

PPP Rev: _____

250



QC

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Quality Control

SCRAP

W 10.02.10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 18, 2009 8:37:22 AM

Page 1

Work Order ID: 53771

Parent Item: D350-748-101RevD

Parent Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D350-748-141TRNRevD		Manufactured	No			110	Each	4.0000	1.0000			



Crosstube Turning Detail



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FG

37995

37999

40099

40103

4

1

1

1

1

DP

10-1-11

ALS4-1032-225

Purchased

No

200

Each

7,324.000 1.0000



Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

107441

110768

7324

16

7308

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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November 18, 2009 8:37:22 AM

Work Order ID: 53771



Parent Item: D350-748-101RevD



Parent Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD10		Purchased	No			200	Each	2,402.000	1.0000			

Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	2402	
105442	19	
109059	2	
109840	23	
110985	202	
111279	5	
111668	64	
112314	965	
112369	122	
113149	1000	

D2856-400RevA

Manufactured

No

200

f

354.0237

1.2432



Abraison Strip

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST403	354.0236842	
50593	144.023684	
52563	210	

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 18, 2009 8:37:22 AM

Work Order ID: 53771



Parent Item: D350-748-101RevD



Parent Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3500-1RevC		Manufactured	No			200	Each	37.0000	4.0000			
Saddle												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	37	
47119	12	
47350	5	
52326	20	

D3502-1RevB

Manufactured No

200

Each

83.0000

2.0000



Support

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	5	
41603	2	
42968	2	
47120	1	
Main Warehouse		
ST107	40	
52903	40	
Main Warehouse		
ST168	38	
50287	38	

SCRAPE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 18, 2009 8:37:22 AM

Work Order ID: 53771

Parent Item: D350-748-101RevD

Parent Item Name: Crosstube Installation, High Fwd


Start Date: 18/11/2009

Required Date: 08/12/2009


Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21920-20		Purchased	No			200	Each	135.3000	2.0000			
												
Clamp (per MIL-DTL-8783C)												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	135.3	
103478	2	
106484	12	
109269	9.3	
110536	10	
111281	2	
112307	50	
112624	39	
112793	11	

MS27039-1-10	Purchased	No				200	Each	212.0000	1.0000			
												
Screw												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	212	
112794	98	
112828	14	
112940	100	

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 18, 2009 8:37:22 AM

Work Order ID: 53771

Parent Item: D350-748-101RevD

Parent Item Name: Crosstube Installation, High Fwd



Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN4-41A		Purchased	No			220	Each	142.0000	8.0000			
												

Bolt

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	142	
105940	4	
110363	16	
110731	50	
111424	50	
112082	22	

AN4-6A

Purchased

No

220

Each

1,765.000 16.0000



Bolt

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1765	
111279	65	
112314	300	
112641	100	
112720	100	
112829	300	
112933	300	
113149	600	

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Work Order ID: 53771

Parent Item: D350-748-101RevD

Parent Item Name: Crosstube Installation, High Fwd



Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN5-32A 		Purchased	No			220	Each	223.0000	4.0000			
Bolt												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	223	
106242	3	
106519	4	
110363	17	
112805	49	
112933	50	
113121	100	

AN960JD416

Purchased

No

220

Each

3,001.000 32.0000



Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	3001	
108161	329	
110523	340	
111279	101	
111916	482	
112314	1749	
16941	0	

SCRAPE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Parent Item: D350-748-101RevD



Parent Item Name: Crosstube Installation, High Fwd



Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD516 		Purchased	No			220	Each	1,548.000	8.0000			

Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1548	
100564	2	
106167	6	
107534	34	
107959	43	
108246	46	
108672	2	
109059	49	
109752	22	
110363	46	
110523	57	
111279	39	
112082	64	
112314	138	
112828	500	
113149	500	

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Parent Item: D350-748-101RevD



Parent Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3501-1RevA		Manufactured	No			220	Each	423.0000	16.0000			

Bushing

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	423	
45402	19	
45918	200	
48268	204	

MS21042L4

Purchased

No

220

Each

4,740.000

24.0000



Nut

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	4740	
110507	184	
111827	4549	
112314	7	
15924	0	

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 9

November 18, 2009 8:37:22 AM

Work Order ID: 53771



Parent Item: D350-748-101RevD



Parent Item Name: Crosstube Installation, High Fwd

Start Date: 18/11/2009

Required Date: 08/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21042L5		Purchased	No			220	Each	854.0000	4.0000			

Nut

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

854

110382

10

111127

4

111636

15

112314

825

SCRAPE

November 18, 2009 8:37:22 AM

Shop Packet Print

Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

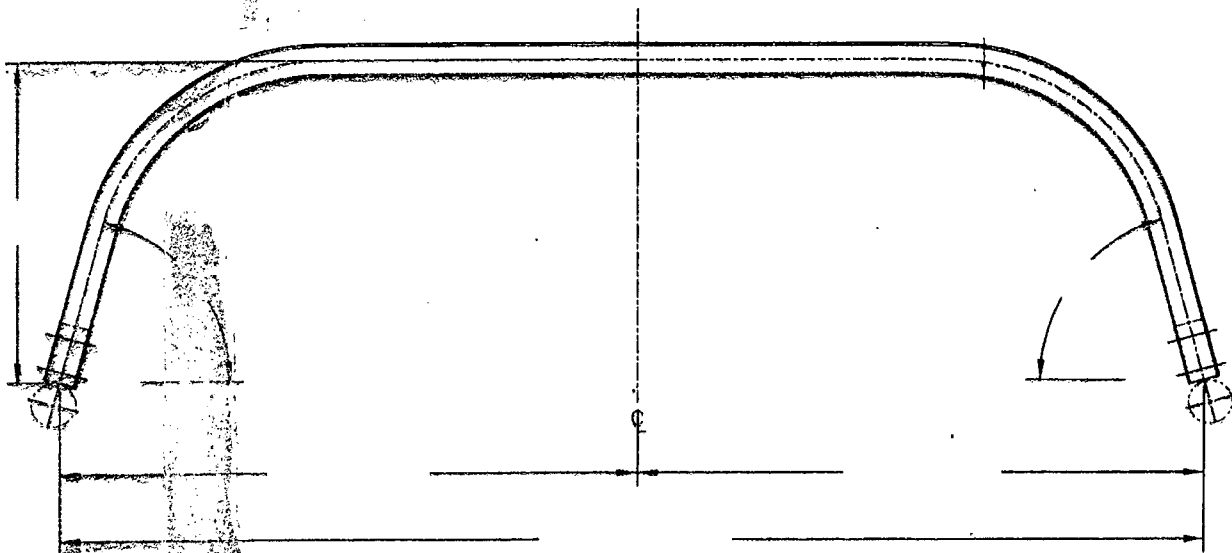
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	53771
Description: Crosstube High Fwd (AS350/355)		Part Number:	D350-748-101
Inspection Dwg: D350-748-141 Rev: D		Page 1 of 1	

Required Dimension	Min	Max
Height	23.13	23.37
1/2 Span	40.78	41.02
Angle	75	77
Total Span	81.56	82.04



Comments
Twist = 0.711" <i>10.01.13</i>

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM <i>[Signature]</i>	<i>[Signature]</i>

Item	Qty	Part Number	Description
1	2	D350-748-141	CROSSTUBE (AS 350/355 HI FWD)
2	1	D350-748-141	CROSSTUBE
3	2	D350-748-141	SUPPORT
4	2	D2856-400-710	ABRASION STRIP
5	1	AELS-632-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-20	CLAMP (PER DART SPEC. M-MS21920-20)
8	1	MS27039-1-10	SCREW

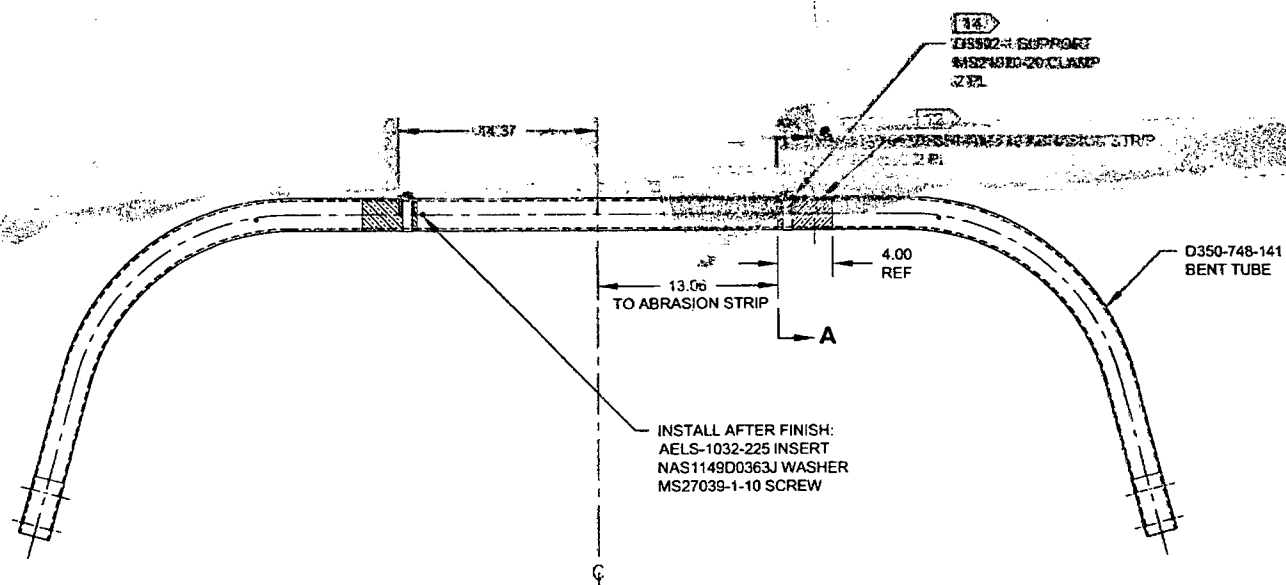
GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6017-115
FINISHED LENGTH = 110.270±0.06
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 036 4.2
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D350-748-141" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 30.45 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS 2759-1C AFTER TURNING.
- 12) INSTALL D2856-400-710 ABRASION STRIPS WITH A GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D3502-1 SUPPORT, PER QSI 035.
- 13) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.
- 14) TORQUE CLAMPS 60 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

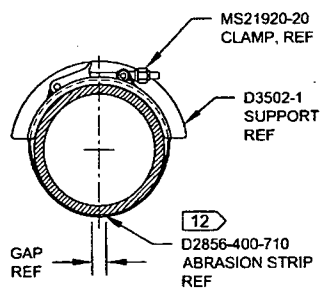
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E	REVISE GENERAL NOTES: UPDATE TO CURRENT ADD STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A6-3); TOLERANCES (ZN C6-3, D1-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6017-115 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D350-748-141	SHEET 1 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE (AS 350/355 HI FWD)	NTS
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**D350-748-141
ASSEMBLY DETAIL**

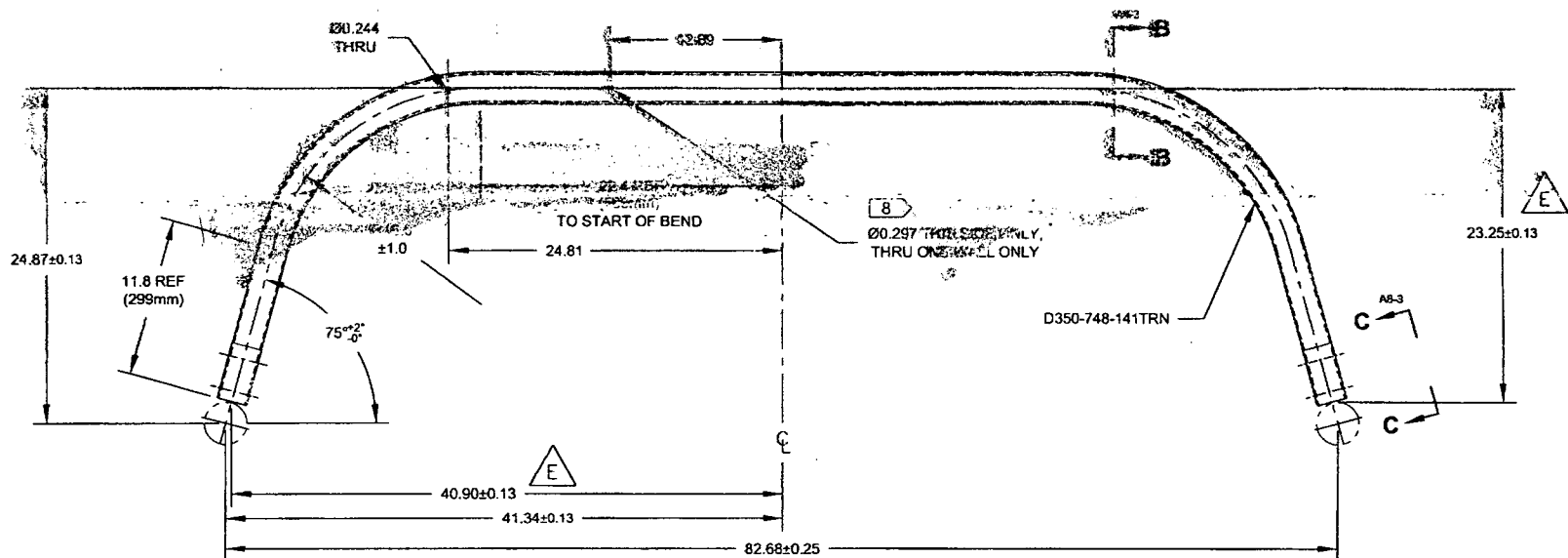


SECTION A-A D4-2
SCALE 4X

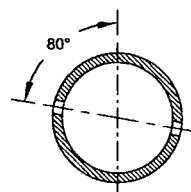
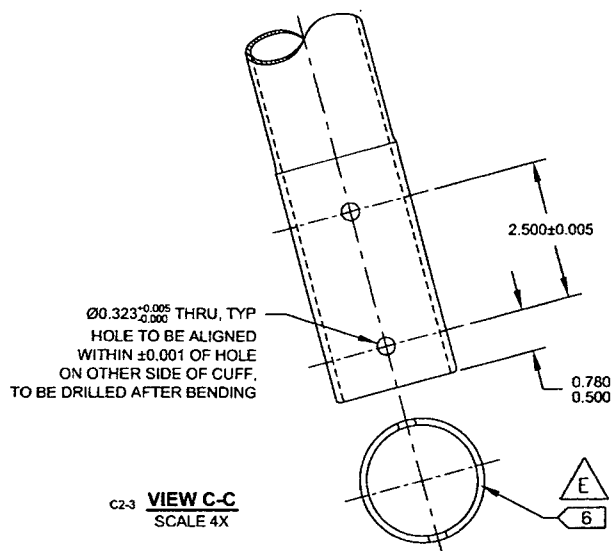
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D350-748-141	SHEET 2 OF 4
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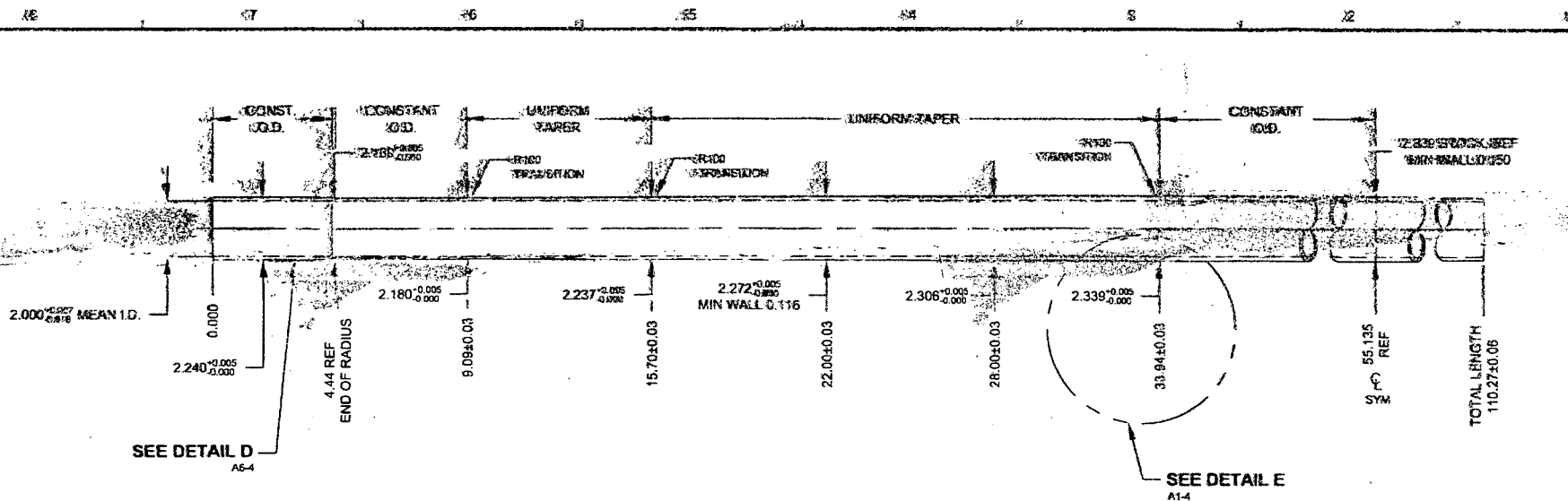
D350-748-141
BENDING AND DRILLING DETAIL 10



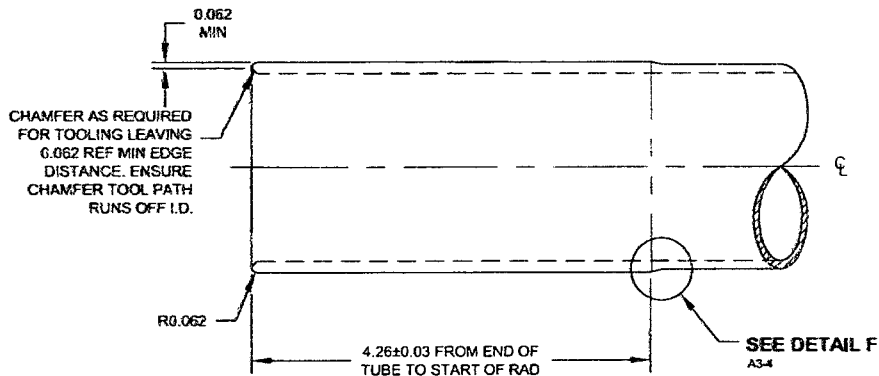
SECTION B-B D3-3
 SCALE 4X

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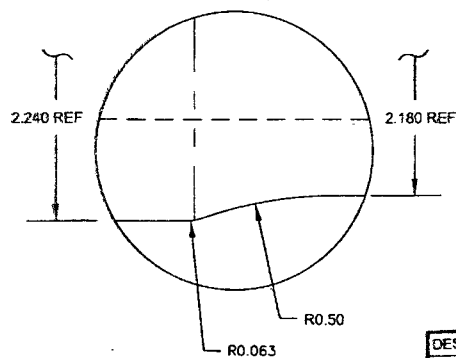
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	9P	DRAWING NO.	REV. E
MFG. APPR.	DS	D350-748-141	SHEET 3 OF 4
APPROVED	10	TITLE	SCALE
DE APPR.	11	CROSSTUBE (AS 350/355 HI FWD)	NTS
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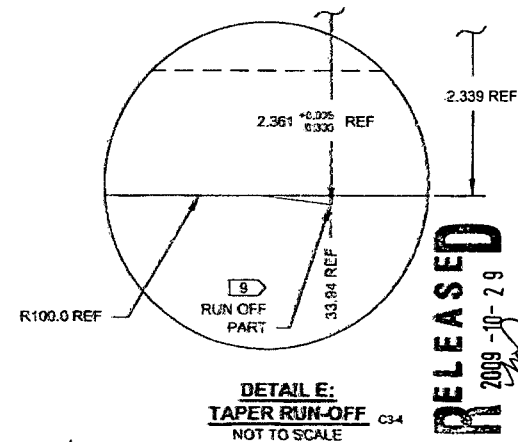
**D350-748-141TRN
TURNING DETAIL**



**DETAIL D:
CROSSTUBE CUFF** C7-4
SCALE 3X



**DETAIL F:
CUFF TRANSITION** A5-4
NOT TO SCALE



41053771

DESIGN	41	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	41	DRAWING NO. REV. E
MFG. APPR.	18	D350-748-141 SHEET 4 OF 4
APPROVED	18	TITLE SCALE
DE APPR.	18	CROSSTUBE (AS 350/355 HI FWD) NTS
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